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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/781,596	02/12/2001	Ian Robinson	32093.00006	6793

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EXAMINER	
JOLLEY, KIRSTEN	
ART UNIT	PAPER NUMBER

1762

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/781,596	ROBINSON, IAN
	Examiner	Art Unit
	Kirsten Crockford Jolley	1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 06 February 2003.

2a) This action is **FINAL**.                                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 10 and 18-33 is/are pending in the application.

4a) Of the above claim(s) 10 and 18-22 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 23-33 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

## **DETAILED ACTION**

### ***Response to Arguments***

1. The claim objections, 35 USC 112 rejections, and double patenting rejections set forth in the prior Office action have been withdrawn in response to Applicant's amendments.

Additionally, the 35 USC 102 and 103(a) rejections over EP 0 936 235 A1 have been withdrawn in response to Applicant's amendments and arguments.

2. It is noted that arguments regarding the 35 USC 102(b) rejection over EP 0 431 728 A1 were not supplied in Applicant's response. New claims 23-33 are rejected over EP 0 431 728 A1 as set forth below.

### ***Election/Restrictions***

3. This application contains claims 10 and 18-22 drawn to an invention nonelected with traverse in Paper No. 6. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### ***Specification***

4. The disclosure is objected to because of the following informalities:

On page 2, line 8 of the specification, it appears that 4,4'-*dicyclohexylmethane diisocyanate*" [emphasis added] is a misspelling and should be --4,4'-dicyclohexylmethane diisocyanate--.

On page 3 of the specification, lines 2-4, the chemical names “4,4<sup>1</sup>-methylenebis (2,6-diisopropylaniline),” “4,4<sup>1</sup>-methylenbis (2,6-dimethylaniline),” “4,4<sup>1</sup>-methylenbis (2,6-diethylaniline),” “4,4<sup>1</sup>-methylenebis (2-ethyl-6-methylaniline),” and “4,4<sup>1</sup>-methylenebis (3-chloro-2,6-diethylaniline)” [emphasis added] are objected to because the Examiner questions whether the chemical names are misspelled and/or whether the superscript “1” should be an apostrophe (‘) similar to the first chemical name in the paragraph.

Appropriate correction is required.

### ***Claim Objections***

5. Claims 23-25 and 30 are objected to because of the following informalities:

In claim 23, the period is missing at the end of the claim.

In claim 24, line 3, it appears that 4,4'-dicyclohexylmethane diisocyanate” [emphasis added] is a misspelling.

In claim 25, lines 3-5, the Examiner questions whether the chemical names “4,41-methylenebis (2,6-diisopropylaniline),” “4,41-methylenbis (2,6-dimethylaniline),” “4,41-methylenbis (2,6-diethylaniline),” “4,41-methylenebis (2-ethyl-6-methylaniline),” and “4,41-methylenebis (3-chloro-2,6-diethylaniline)” [emphasis added] are misspelled and/or whether “41” should be --4’-- similar to the third chemical listed in claim 25.

In claim 30, line 1, the phrase “the said first part” is awkward language. The Examiner suggests deleting “the”.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 24, 25, 27, and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 24, 25, 27, and 31, the phrase “selected from the group comprising” is vague and indefinite because it is improper Markush language. The Examiner suggests replacing “comprising” with --consisting of-- to provide the claims with proper Markush language.

Additionally, in claim 31, line 2, the phrase “selected from the group comprising Dipenta-erythritol pentaacrylate” is vague and indefinite because the “group” appears to only contain one chemical.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 23-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 431 728 A1 in view of EP 0 936 235 A1.

EP '728 discloses a method of forming a coating on a surface comprising the steps of: providing a first part (component (A)) comprising an aliphatic polyisocyanate (see page 3, lines

30-41); providing a second part (component (B)) comprising an aromatic polyamine chain extender (page 5, lines 19-25) in combination with an amine terminated polyoxyalkylene polyol (an oligomeric polyamine) (page 5, lines 14-18); mixing together the first part and the second part to form a mixture; and applying the mixture as said coating to said surface where the polyamines react with the polyisocyanate to form a coating (page 6, lines 47-53).

EP '728 lacks a teaching of applying its coating to the internal surface of a drinking water pipeline as required in claim 23. However, it is noted that EP '728 teaches on page 3, lines 23-25, that its invention involves spraying onto a substrate and is not limited as to the substrates that may be used. EP '728 teaches that the composition is used in applications where fiberglass resins, epoxies and polyesters are typically being used. One skilled in the art would have been motivated to look to the prior art for applications where fiberglass, epoxy and polyester resins are typically used to discover uses for the product of EP '728. EP '235 is directed to coating the inside of drinking water pipelines. EP '235 teaches that epoxy and polyurethane resins are typically used in the industry of coating drinking water pipelines (page 2, paragraph [0006]). Additionally, it is noted that EP '235 is directed to a materially similar coating composition as EP '728. It would have been obvious for one having ordinary skill in the art to have used the coating composition of EP '728 on the interior of a drinking water pipeline upon seeing the combination of references EP '728 and EP '235 since EP '235 teaches that epoxies are historically used in the industry and the coating of EP '728 may be used in place of epoxy coatings.

With respect to claim 24, EP '728 teaches using 4,4'-dicyclohexylmethane diisocyanate as the exemplary aliphatic diisocyanate in page 3, lines 40-41. With respect to claim 25, EP '728

teaches that the chain extender of its invention may be aromatic polyamine diethyldiisobutyltoluene diamine (page 5, lines 20-21). With respect to claims 26-29, EP '728 teaches using an amine terminated polyoxyalkylene polyol in component (B), and further teaches that the particular polyols employed are the same as those described in connection with the quasi-prepolymer of component (A) (page 5, lines 14-18). Among the polyols taught are polyoxyalkyleneamine (page 4, lines 32-34). Specifically, on page 5, lines 4-13, EP '728 teaches using JEFFAMINE products. It is noted that JEFFAMINE D-2000 is a 2000 molecular weight polyoxypropylene diamine and JEFFAMINE T-3000 is a 3000 molecular weight polyoxypropylene triamine.

As to claim 30, EP '728 teaches that amine reactive resins as catalysts may be incorporated into either component (A) or (B) at page 6, lines 23-35, meeting the limitation of claim 30. Alternatively, with respect to claims 30 and 31, the Examiner notes that EP '235 teaches that, when coating internal water pipelines, it was found beneficial to blend a liquid epoxide resin such as diglycidyl ether of Bisphenol A with the other coating ingredients in order to minimize high linear shrinkage during curing (page 5, paragraphs [0033] and [0036]). It would have been obvious for one having ordinary skill in the art, upon taking the references of EP '728 and EP '235 collectively, to have added a liquid epoxide resin such as diglycidyl ether of Bisphenol A to the coating composition of EP '728 when coating the interior of drinking water pipes in order to reduce linear shrinkage while still retaining the rapid film cure taught in EP '728. The test of obviousness is not express suggestion of the claimed invention in any or all references but rather what the references taken collectively would suggest to those of ordinary skill in the art presumed to be familiar with them. *In re Rosselet*, 347 F.2d 847, 146 USPQ 183 (CCPA 1965); *In re Hedges*, 783 F.2d 1038.

As to claims 32-33, EP '728 teaches using a heated, airless, self-mixing spray gun assembly (page 6, lines 47-53).

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art of Primeaux, II et al. (US 6,399,736) is cited to demonstrate a coating useful on metal/steel surfaces comprising the claimed aliphatic isocyanate, aromatic polyamine, and aliphatic polyamine components (see col. 3, lines 43-63, col. 5, line 36 to col. 6, col. 7, lines 8-13, col. 7, line 66 to col. 8, line 5, col. 9, lines 46-60, and col. 14).

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kirsten Crockford Jolley whose telephone number is 703-306-5461. The examiner can normally be reached on Monday to Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on 703-308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1193.

*KCJ*  
kcj  
April 3, 2003

*SPB*  
SHRIVE P. BECK  
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